

*Virginia
Wildlife*

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Virginia Wildlife

*Dedicated to the Conservation of
Virginia's Wildlife and Related Natural Resources
and to the Betterment of
Outdoor Recreation in Virginia*

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COVER: He doesn't grow as large as most other panfish, but the pumpkinseed sunfish takes back seat to none in color and is a long-time favorite with many "pole fishermen." Look for him especially in openings in vast beds of submerged aquatic vegetation growing in still, nonflowing waters. Our artist: Duane Raver, Cary, North Carolina.

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Public Land Law Review

ATTENDING a recent public meeting of the federal Public Land Law Review Commission was an interesting and thought-provoking experience.

The Public Land Law Review Commission was established by Congress to study all existing statutes, regulations, and policies of federal administrative agencies, governing the retention, management and disposition of the public lands; and to recommend those actions which should be taken to assure that the public lands of the United States shall be either retained and managed, or disposed of, in a manner which will provide maximum benefit for the general public. The complexity of existing public land laws, the variety of our public lands, and the many diverse purposes for which they are held in public ownership, make the task of the Review Commission a gigantic one. We have space to comment only upon a few pertinent questions which are of major significance in management of fish and wildlife resources on public lands, although there are many other interesting and controversial issues involved.

Only one state in the Southeast has more federal public land within its borders than Virginia has. Thus, we have had our share of experience with the operation of certain federal public land laws and policies, and generally we have found them to be good. We would urge a great deal of care in introducing radical changes in the basic land laws of the United States and the policies and procedures by which they are administered. Just because these present laws and policies have evolved through a process of tinkering and piecemeal accretion to meet changing situations does not necessarily mean that they are now entirely inadequate.

Undoubtedly some laws and policies need perfecting, through further evolution. But change just for change's sake is more likely to create chaos than to eliminate it, so let there be further evolution, but no sudden revolution, in the management of our public lands.

There is one revolutionary development already taking root that is unsound and needs to be nipped in the bud.

Historically, legally, traditionally, resident wildlife resources belong to the several states, which administer and manage them for the good of all the people of each respective commonwealth. This principle holds true no matter who owns the land upon which such wildlife resides. Now along comes the claim of federal jurisdiction over the resident wildlife resources on federally owned land! This principle, if it gains acceptance, will truly create a condition of chaos.

To the extent it has acquired wildlife habitat in Virginia, the federal government is a landowner. The wildlife on its lands never has, does not now, and never will belong to any landowner, unless somebody makes a radical and revolutionary change in the status quo, and this should be apparent even when the landowner is the federal government.

We would regard the transfer of jurisdiction over resident wildlife resources on public lands from the states to the federal government as extremely unsound; and since there already has developed a definite move in this direction within federal land-administering agencies, it is most desirable at this point that Congress reaffirm the principle that jurisdiction over resident wildlife resources on federal public lands does, and will, remain where it has always been—with the several states.

Next month we will comment on two other matters that have been brought before the Public Land Law Review Commission—management objectives on, and public access to, our public lands.—J. F. Mc.

Young Hunter Needs License

I would like to have some information that your Game Law Summary does not clear up.

I buy non-resident license for the State of Virginia and do quite a bit of varmint hunting through the summer plus other hunting in the open seasons. Sometimes I take a small boy, under 15 years, with me to teach him to hunt and shoot. I haven't done this in Virginia but have done it in West Virginia a few times. I can't find anything pertaining to his buying license in your laws. I wonder if he would be allowed to shoot or hunt on my license? He is not my son, but is my nephew and I am responsible for him.

E. M. Hatfield

Jaeger, West Virginia

There is no minimum age requirement for hunting in Virginia, but everyone who hunts, regardless of his age, must have a license. The only exceptions are in the case of hunters over 70 years of age while hunting on privately owned land in the county in which they reside, landowners and their immediate families while hunting on their own lands, and tenants while hunting on the lands on which they reside. None of these exceptions appears to apply in the case of you and your nephew, and therefore the boy should have a license if he hunts any form of wildlife (including "varmints") in Virginia.—Ed.

Enforcement Officers Appreciated

I'VE had it clear-up-to-here on this police brutality bit.

It is about time for some of us to start talking about the brutality to the police.

Law enforcement officers are to be looked upon as friends. It has been my good fortune to have visited many cities, towns and hamlets in 48 states. In doing so, I have had opportunity to contact the town marshal, the sheriff and the policeman on the beat.

Whenever I have sought assistance I have always felt free to approach them with whatever problems I had at the moment. Invariably I have received courteous and helpful assistance.

Whenever I have witnessed arrests the thing that amazed me was the tolerance shown by the officers. The culprit frequently resists in every way possible. Invectives, abusive language and physical resistance are the common tactics used in the hope of provoking the officer into using some sort of physical retaliation. This would permit the use of the time-worn "police brutality" gambit in order to get sympathy and a lighter sentence from the court. In most cases the self control of the officer is something of a miracle.

It is about time for the law-abiding citizens to start supporting the law enforcement branch of our government. A little pressure on the courts, all up and down the line, for prompt and adequate correctional measures would also help.

If this can be done, we might be able to again walk the streets with some sense of security.

What better nucleus could be found, than the sportsmen of Virginia, to foster this change of attitude in every community in the state?

M. P. Leaming
Arlington

THE VIRGINIA OUTDOOR PLAN

A Year of Progress

By FITZGERALD BEMISS

THE purpose of the Virginia Outdoors Plan is the conservation and development of Virginia's outdoor recreation resources for the enjoyment and general benefit of people—today's people and their children and grandchildren.

Thanks to the interest of many thousands of Virginians and the action of the General Assembly, the Plan is now in existence; the State and local governments are equipped with the policies, machinery, and funds to undertake the Plan. The Commission of Outdoor Recreation is steadily preparing itself to perform its duties of leading and coordinating the broad plan of action called the Virginia Outdoors Plan. Although the Plan's first and most specific phase is the 1966-76 decade, it is designed to continue beyond that period, improving and adjusting itself constantly to changing conditions and demands.

BASIS OF THE PLAN

The Plan is based on five fundamental findings stated in *Virginia's Common Wealth*—The Report of the Outdoor Recreation Study Commission:

1. There is a strong and growing demand for more outdoor recreation opportunities. The population is increasing dramatically. Not only are there more and more Virginians; increasingly, they are living closer and closer together. Yet they have more leisure time than ever before, they have higher incomes, and they have more automobiles. These are the dynamic factors behind Virginians' demand for access to the Virginia outdoors and for places to walk, to swim, to launch

Remote natural areas that are quiet, clean and beautiful are becoming scarcer, farther and farther away, and harder to find.

There is a strong and growing demand for more outdoor recreation opportunities of all kinds.



- a boat, to camp—to loaf and re-create themselves.
2. Existing facilities are inadequate for present demands. This is true in all resource categories—from neighborhood city parks to remote natural areas. There is a serious deficiency in number, location, and variety of State Parks. And the places to just get out of doors—to a place that is quiet and clean and beautiful—are scarcer and further and further away.
3. The need for action is most urgent in metropolitan areas. Three-fourths of Virginia's population will soon live in these areas. Meanwhile open space for outdoor recreation is being consumed, spoiled, or made unavailable at an alarming rate. An "open space" in a metropolitan area can mean a lot of things: a major park or a little neighborhood grass plot, a broad tree-lined avenue or a hiking trail along the river bank, a tree-lined stream bed separating the housing development from the shopping center or a grassy place without asphalt and automobiles.
4. The term "outdoor recreation" must include the entire Virginia outdoor environment. The most popular forms of outdoor recreation are the simplest ones—driving, walking, swimming, and picnicking. So outdoor recreation must involve State Parks and the roads which take people to them; municipal parks and playgrounds and habitable communities; access to ample, unpolluted water, historical sites and harmonious countryside. All of these are outdoor recreation resources and they must be dealt with as interrelated parts of the total environment in which Virginians work, play, and live.
5. Action on the necessary scale must involve each in-

Adapted from March 15, 1967, issue of *The University of Virginia News Letter*. The author is state Senator from Richmond and Chairman of the Virginia Commission of Outdoor Recreation.





Va. Dept. of Conservation & Economic Development photos

dividual and his government at each level—local, regional, State, and Federal. Each level of government has a job to do, and the State should lead, coordinate, and assist. But the continuing success of the Virginia Outdoors Plan must rest basically on the individual citizen who cares about the quality of his environment, feels a responsibility to the natural and historic resources of the State, and is willing to support the overall plan and do his part in his own community.

The elements of the Virginia Outdoors Plan itself are in five general categories:

1. A State policy and a continuing comprehensive program of action to protect the quality of the Virginia outdoors and to make its resources available to its people.
2. A permanent Commission of Outdoor Recreation to analyze supply and demand, and to lead and coordinate State, local, and Federal activities.
3. State action to plan, acquire, and develop outdoor recreation resources and facilities and to encourage, assist, and guide local and regional governments.
4. Local and regional action to meet local and regional needs for planning, acquisition, and development.
5. Encouragement for individuals and private enterprise to meet their vital part in the total program.

These general categories embrace the 21 specific recommendations made by the Study Commission and are implemented by the Legislation offered by the Commission and enacted by the 1966 General Assembly.

Since this legislation is the backbone of the Plan, it is useful to review it.

THE LEGISLATION

The first act created the Commission of Outdoor Recreation. It states the basic policy of the State and the purposes of the Commission.

In unusually powerful and all-embracing terms, the General Assembly set forth the statement of purpose of the act and the goals of the Commonwealth in outdoor recreation. The major conclusions repeated the findings of the Outdoor Recreation Study Commission, noting especially the growing demand for recreation facilities and the decrease in the available amount of open space, both occurring as a result of the rapid urbanization of the State.

The Commission is composed of nine members, including the heads of the Departments of Conservation and Economic Development; Game and Inland Fisheries, Highways, and the new State Division of Planning. The Commission will provide a single point at which are gathered and coordinated all the local, regional, State, and Federal recreation resource and development plans. The professional staff will analyze resources and demands and ideas, and refine the plan in consultation and cooperation with private interests and with local, regional, and Federal government agencies. The Commission is not an operating agency. The Division of Parks, the Commission of Game and Inland Fisheries, and the Highway Department continue and, in fact, accelerate their activities. The Commission of Outdoor Recreation coordinates these varied State agencies in relation to the goals of the Virginia Outdoors Plan. The Commission also allocates the Virginia Outdoors Fund for both State projects and to localities as matching grants-in-aid for qualified local open space plans.

The second law is called the Open Space Land Act. It is concerned mainly with urban areas and its broad purpose is to enable and encourage local governing bodies in urbanizing areas to plan and acquire open space. It recognizes that without some planning and action to preserve open space, the *quantity* of "progress" of suburban sprawl will blot out
(Continued on page 22)



Not only must recreation areas be preserved, but there also must be the right kinds of roads to take people to them. Leisurely driving itself in the right kind of environment is a popular form of outdoor recreation.



HAPPY HUNTING GROUND OF HIGHLAND COUNTY

By J. E. THORNTON
Supervising Game Biologist

FOR all around good hunting and fishing, Highland County is hard to beat, and some of the best is to be found on the Highland Wildlife Management Area. For scenery alone, a visit to the Highland Area is well worth the trip.

Located in a county known as "A Little Switzerland of America," the Highland Wildlife Management Area was acquired by the Virginia Commission of Game and Inland Fisheries in September 1962 as part of its long-range plan to provide public hunting and fishing areas for the sportsmen of Virginia. It is composed of four distinct tracts located in close proximity of each other, with a total of 17,781 acres. The four tracts making up the Highland Area are the Bullpasture Mountain Tract (4,820 acres), the Jack Mountain Tract (8,502 acres), the Benson Run Tract (3,898 acres), and the Doe Hill or Crab Run Tract (561 acres). Most of the land was at one time owned by the Highland Development Company; later by the U. S. Lumber Company; and just prior to the time the Commission acquired it, by the Huber Corporation. Old sawmill sites and evidence of intensive logging operations are everywhere, as it was only relatively recently that logging operations on a big scale were brought to a halt. As was the general custom at the turn of the century and on up into the late 1920's, little consideration was given to the future. Timber crops were harvested with no regard for the residual stands, and, for the most part, the land was stripped of all economically usable commercial timber. As a result, what timber is growing today is in small sawlog or pulpwood size, having grown up since timber operations were halted. Much of the area, although rough in terrain, is basically good timber-producing land and is recovering fast from early exploitation.

The Bullpasture Mountain Tract is located just north of Williamsville and is reached by traveling down Route 614 from McDowell through the Bullpasture gorge or by crossing the Shenandoah Mountain at Scotchtown Draft from the Deerfield side. Here the road alongside the Bullpasture River through the Bullpasture Gorge offers the sportsman

and the recreationist a chance to view some of the most beautiful scenery in Virginia. Here Commission property extends for over a mile along both sides of the road. The river is stocked heavily with rainbow and brook trout from the Commission's nearby Williamsville Trout Hatchery. A campground just two miles north of Williamsville, known as Mill Run Camping Ground, provides unimproved camping facilities for the sportsman using the area. Walking access across the river to the main Bullpasture Mountain is to be found here with the Sandy Hollow Road tying in with a network of old logging roads crisscrossing the mountain itself. This same Sandy Hollow Road ties in with another road which meanders through the Hupman Valley and connects with Route 612, which is an unimproved road, passable as of now by four-wheel drive vehicle only. The Hupman Valley road, although going through private property, offers a right-of-way to the persons interested in visiting this particular area. Deer are plentiful here and deer food is abundant over most of the Bullpasture Mountain because of the relatively recent logging operations (1956). Turkey hunting is good throughout the mountains. The sod patches, old openings, and abandoned farmland found along the top of the mountain provide the open areas which make for good turkey range.

The Jack Mountain Tract, the largest single block in the Management Area, lies within sight of Monterey. The principal access to the area is the old fire trail leading to Sounding Knob where a fire lookout tower is maintained by the Virginia Division of Forestry. This trail, passable in dry weather by most privately owned vehicles, leaves Route U. S. 250 northward from the top of Jack Mountain and from Route 615 at Davis Run. The trail down the top of Jack Mountain from U. S. 350 provides more spectacular scenery and looks down into the Jackson River Valley north of Monterey. Wild turkey populations are good here too, and the open sod fields along the top of the mountain add to the quality of the turkey range. Grouse and deer hunting in the vicinity of Davis Run is good. Davis Run is stocked each year with brook and rainbow trout and provides trout



Commission photo by Kesteloo

Sounding Knob, atop Jack Mountain, is one of the best known landmarks in Highland County.

fishing throughout the summer.

Another tract making up the Highland Area is the Benson Run Tract, which is wedged in on three sides by land belonging to the George Washington National Forest. Timberwise it is probably the best of all the areas, with good soil and a fast-growing stand of young trees. Deer populations here are good but food is somewhat scarce because of the stage in which the timber is growing on the area: that is, it is in pole stand size at the present time, producing little deer browse. Wild turkey and ruffed grouse are found here too, in goodly numbers. Benson Run itself has long been known for its native trout fishing. In recent years, however, it has been stocked with brook and rainbow trout where it heads up on National Forest land above Commission-owned property. The Benson Run Tract may best be reached via the Forest Service Development Road which comes in from the Deerfield Valley in Augusta County off Route 629. Two access points or rights-of-way lead off Route 614 neither of which has been developed to date. One may be traveled in a four-wheel drive vehicle with little trouble but necessitates crossing the Cowpasture River, which in itself is no simple task when the water is high.

The Doe Hill Tract, consisting of only 561 acres, presents an access problem as no access exists to this area at the present time except across private land. The terrain here is rough and rocky, and game populations are relatively low.

The Highland Wildlife Management Area offers some of the best opportunities for multiple use management of any of the areas owned by the Commission. Wild turkey and deer find good habitat over much of the area. Ruffed grouse are found in goodly numbers, particularly in the more recently cut over areas. Bear, while not abundant, are found occasionally. Squirrels, while limited in numbers because of the relatively small numbers of mature oaks, are common. Trout fishing is good in those streams which hold water the year around, like Benson Run, Davis Run, and the Bullpasture River, with good possibilities for increased and improved fishing in the Bullpasture Gorge area. The development of camping facilities to date has been limited, but improved and enlarged camping facilities for the hunter and the fisherman and for the recreational camper will come with time.

A timber management program commensurate with other resources of the area is being carried out. Here, as on other

Commission lands, the main objective of the timber program is to improve the wildlife habitat for game. Timber and pulpwood operations are carried out with the idea of improving browse conditions for deer, creating openings for wild turkey and other game species, and to allow sufficient mature hardwoods to remain so as to provide for good mast production.

Just what does the Commission plan for the area for the long haul? First, of course, it is interested in providing for the best hunting and fishing possible for the sportsmen of Virginia, since this is the main reason the land was acquired. This will be accomplished mostly through a timber management program designed primarily to produce wildlife habitat rather than conventional forest products.

Supplementary improvements will also be made when needed, such as additional sod clearings, waterholes, and the planting of wildlife food plants. Access roads and trails will be developed where needed. This phase of the work is most important on some of the tracts where access is limited. Where sites for small lakes exist, these lakes will be built to provide for limited warm water fishing. A number of potentially attractive campsites exist, especially in the Bullpasture Gorge and on Jack Mountain and Bullpasture Mountain. With the possible help of other agencies specializing in providing outdoor recreation other than hunting and fishing, it is planned to develop an improved system of public campgrounds to serve other outdoorsmen as well as hunters and fishermen.

Purchased with funds derived from hunting and fishing license sales, and managed primarily as a public hunting and fishing area, the Highland Wildlife Management Area is a vast, almost untapped reservoir of all kinds of outdoor recreation possibilities and opportunities. As human population grows and as demands for wholesome outdoor experience rise, the time comes when we can no longer dedicate such natural resources as this to a single purpose or use. And indeed there is no reason to wish to do so, for many kinds of recreational opportunities exist on the Highland Area which are fully compatible with the main objective, which is wildlife habitat manipulation to produce maximum sustained annual crops of wild game birds and animals. Hunting and fishing are Highland's main attractions in autumn and spring, but our "Little Switzerland" has much more to offer. Come on up and see it sometime. You'll be convinced.

KING COTTONTAIL



HE sports no glamorous "rack," flashes no spectacular plumage. His mounted form graces no sportsman's den. Few hunters even list him among the top choice of the game they hunt. Yet he's taken in larger numbers, by more hunters, than all other North American game mammals put together.

His name? The cottontail rabbit. Why does he top so many game lists? As a quarry, he's well camouflaged—fast and full of tricks, to be sure. He's good eating and easily prepared for the table and for sheer fun; hunting him with a good hound is hard to beat. But the real secret of Br'er Rabbit's top standing with hunters is the simple fact that he's available. Available in more places, at more times, in larger numbers than any other North American game.

According to Remington Arms Company's game biologists, there's hardly a state in the continental U.S. that doesn't have a good number of bunnies. Hardy and adaptable, they thrive in a variety of habitats, from western greasewood draws to eastern country club greens. Although the differences are more apparent and important to scientists than to hunters, not all "cottontails" are the same.

Wooded land in the Northeast, from New England south into West Virginia, is home to the "New England" cottontail, or "wood rabbit," somewhat darker than the true eastern cottontail and often bearing a black spot between his ears. When eastern lands were cleared for farming, the true cottontail took over much of the area. But now, as reforestation booms in the East, the wood bunny is coming back into his own.

In Dixie the true cottontail occurs wherever land is high and dry, but in wooded wetlands from Virginia and southern Illinois to Florida and Texas, the cottontail's kissin' cousins, the marsh and swamp rabbits, hold forth. Adding one more stunt to the cottontail's already-full bag of tricks, these rascals may willingly take to water and swim to throw off a close-trailing hound.

Western hunters find many cottontails, but may also match wits with the smallest of the bunny tribe—the pygmy rabbit. This eight to eleven inch mite hangs out in the sagebrush lands of parts of California, Nevada, Oregon and Idaho.

By whatever name, the cottontail and his brethren furnish a lot of hunting for a lot of hunters. In nearly every state, hunting seasons for rabbits are longer than those for any other species. Most eastern and midwestern seasons run from five weeks to five months, often providing winter-long sport. In at least a dozen states, most of them in the West, there are no closed seasons and no bag limits on cottontails!

Biologists say that it's hard to estimate exactly how many bunnies are harvested annually, but that the bag measures in the tens of millions.

Midwestern sportsmen, too, thrive on rabbit hunting. In one recent season, Missouri hunters bagged an estimated 3,300,000 cottontails. And in neighboring Illinois, surveys indicate hunters take over five million cottontails most seasons.

How can cottontails stand such harvests, over such long seasons, and still prosper? They're used to it, for one thing. Since the first bunnies appeared on earth, they've been a staple item in the diet of a host of furred and feathered predators. While individual cottontails have been known to reach the age of seven and even nine years, the average life-span is measured in months, most never survive their first winter, whether hunted by man or not. Their secret of survival rests in rapid-fire reproduction. An adult female cottontail may shuck out 6-7 litters during one March-to-September breeding season, with 3-4 youngsters in the first litter and 5-6 per litter thereafter. In exceptionally good years, young females born in the spring will be producing their own young by the same fall.

According to experts, the cottontail's answer to hunters—winged, fourfooted or two-legged—is a simple one: "If you can't lick 'em, outnumber 'em." So far, there's no sign that King Cottontail won't be able to continue doing just that. More power to him!

COMMISSION OWNED LAKES:

Lake Brittle

By H. L. GILLAM
Information Officer



LOCATED on the eastern edge of Fauquier County a little over 30 miles from the District of Columbia, Lake Brittle offers good warm-water fishing right on the edge of the growing metropolitan complex in Northern Virginia. In addition to largemouth bass and bluegills, the lake has a good population of crappie and a good number of catfish, including some extremely large ones running to over 26 pounds.

The 77 acre lake was opened to fishing in 1955. It ranges in depth to 25 feet and lies in a setting of gently rolling countryside surrounded mostly by hardwood timber. The lake has no tangles of underwater vegetation and the few stands of cattails are being eliminated. A concessionaire maintains a large complement of boats for rent with electric motors available as optional equipment. Sandwiches, drinks, bait and tackle are available at the concession stand which remains open throughout the year. A ramp is provided for fishermen to launch their boats.

The lake supports some 10,000 fishing trips per year with most of the pressure falling in the months of April, May, June and July which coincide with the best fishing. April and May are the top crappie months while bluegills bite best in May but continue to provide good sport well into September. May is the best month for bass but July and August are also good. Catfish catches are heaviest in June and July.



Commission photo by Kesteloo

Lake concessionaire John Bannister, left, and Sgt. John Beauchamp hold the latter's 19¾ pound channel cat caught from the lake in 1965. A 26 pound 8 ounce has since been caught.



The lake, fed by the clear waters of Cedar Run, is nestled in rolling countryside surrounded mostly by hardwood forest. It is almost completely free of troublesome submerged weeds.



CHOOSE YOUR TACKLE

TWENTY-FIVE years ago the typical Old Dominion angler was either a fly-rod man or a baitcaster. Or if he was skeptical of artificial lures he baited his hook with a worm or minnow, and waited patiently at the butt end of a long cane pole. Fishing, like living, was simpler then.

And then out of war-torn Europe came an odd-looking gadget known as the spinning reel. It hung gawkily below the rod handle, and the angler operated its spindly handle with his left hand. Neither a fly reel nor a casting reel, it had some of the characteristics of both. Most unique was its stationary spool which held the light spinning line.

The spinning reel was an effective piece of fishing tackle, though. It raided the ranks of the fly and baitcasting enthusiasts, and attracted many neophytes to the angling game. A few more conservative Old Dominion anglers even expressed the fear it would deplete our fertile fishing waters.

The European import revolutionized fishing in Virginia and throughout the nation. Now there were spincfishermen and spincasters in addition to the fly-rod purists, the conventional plug casters, and the now completely skeptical cane polers. Fishing was losing its simplicity.

Variety is the key word in describing spinning tackle and its use. And Americans have made full use of its adaptability in applying it to their fishing needs.

A wide variety of lures are available to the spinning angler. In addition to the many small spoons, plugs, and spinner-fly combinations designed especially for spinning tackle, the angler can use the lighter lures of the baitcaster, tiny fly-rod lures, wet flies and streamers, and in a pinch he can snap on a small plastic bubble and fish dry flies. Light weights ahead of wet flies and streamers make them hefty enough to cast.

Spinning tackle gives the natural bait angler the advantage of being able to deliver a soft cast in placing his bait in the desired spot. This is more difficult with a casting or fly-rod, and the bait is easily snapped off when cast too hard.

The tyro to the fishing ranks finds the spinning outfit the easiest to master. The still spool eliminates the backlash, the nemesis of the baitcaster and the stumbling block to newcomers.

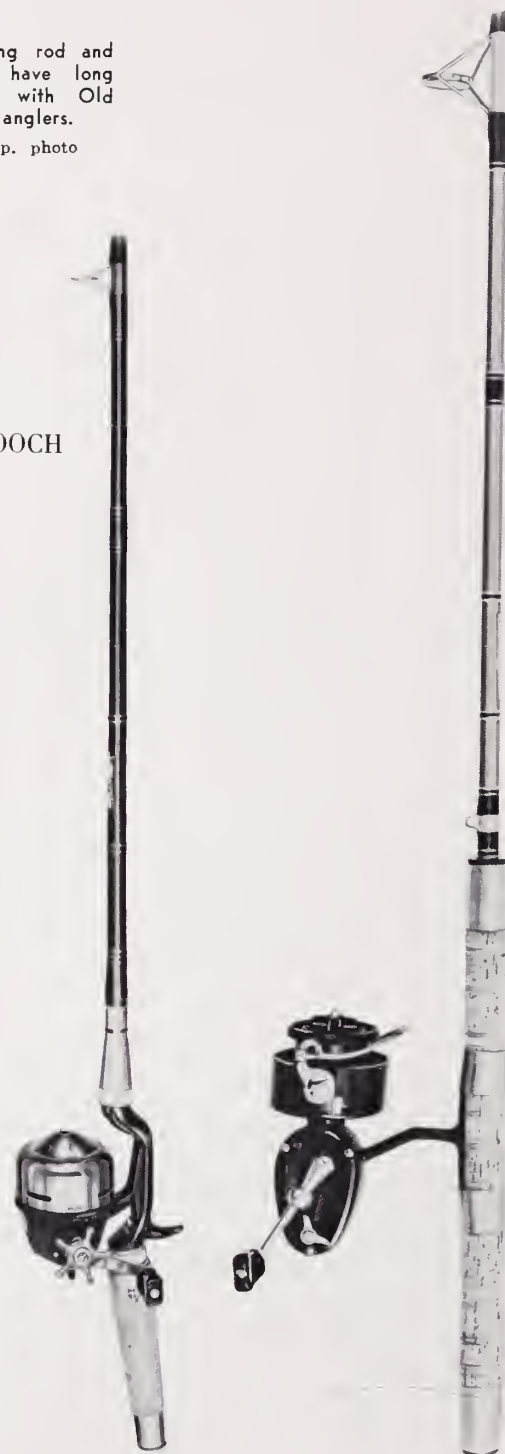
Even the experts—those adept with the casting and fly rod—soon discovered that spinning was better adapted for certain kinds of fishing. There is no better tackle for opening the Old Dominion trout season where anglers fish elbow to elbow, and casting room is almost nonexistent. It's effective for early season trout, and it matters little whether you use flies, streamers or salmon eggs.

Virginia fly fishermen had mastered shad catching techniques long before spinning tackle made its debut in Amer-

The bait casting rod and reel (above) have long been popular with Old Dominion anglers.

Garcia Corp. photo

By BOB GOOCH
Troy



Garcia Corp. photos

The open-face spinning reel (right) is a European import. American manufacturers have designed a closed-face model, which incorporates many of the features of the baitcasting reel.

ica, but the still spool tackle has proved more suited to this type of fishing where dime size lures are just the ticket for the silvery fighters.

The brush-lined Virginia headwaters stream where brilliantly colored native trout play is another place that spinning tackle comes into its own. Many anglers still cling to light fly tackle for this fishing, but there is rarely room to work out a fly line. The lightest spinning tackle available is ideal for these high country brookies that rarely exceed 10 to 11 inches.

The European reels first used in the United States were the open-face type with the spool exposed. The line is guided on the spool by a wire bail. American manufacturers have modified the spinning reel by introducing a closed-face type similar to the spincasting reel which will be discussed later. Most fishermen seem to prefer the open-face type, however, feeling that it is simpler to operate and easier to get to for streamside repairs.

Spinning rods are light and flexible, permitting the angler to get the maximum play from a scrappy fish. The thin monofilament line eliminates the need for a leader, and is almost invisible to his wary quarry.

In many respects the spincasting reel is the closed-face spinning reel adapted to baitcasting methods and use on a conventional baitcasting rod. The still spool principal is employed, thus eliminating the backlash problem.

The reel is mounted on the casting rod on top of the handle in the same manner as the baitcasting reel. The spincaster copies the style of the baitcaster, using his thumb to control the flight of the lure. However, instead of thumbing the line, the spincaster uses the push button built into the reel for that purpose. Because of this feature spincasting is often called push-button fishing.

The spincasting reel is an American invention that grew out of the desire of Lloyd E. Johnson, a Minnesota tool maker, to combine the best features of both the spinning and baitcasting reels.

Spincasting has probably made greater inroads into the baitcasting ranks than has the spinning outfit. The elimination of the backlash problem, the ability to use lighter lures, and the thin monofilament line are the big attractions of spincasting over baitcasting. And then, of course, the ease with which spincasting can be learned has attracted many beginners who might have otherwise taken up baitcasting.

While all the conventional casting plugs and spoons are available to the spincaster, he can also use lighter lures,

though not the very light ones so popular with spinfishermen.

The spincasting reel also permits the angler to cast live minnows or lightly hooked worms without the risk of having them snap off. The cast is not as soft as the spinning cast because the rod is less flexible.

When fishing in extremely cold weather the spincasting reel is more comfortable to handle. Icy water does not drip on the hands, and the casting thumb is not exposed to the wet line.

With the exception of a few expert casters, the average angler can get more distance with spincasting tackle than he can with a baitcasting rod mounted on the same reel. But offsetting this advantage is the reduced control he has over his lure on the cast.

The revolving spool of the baitcasting reel is the major difference between this long popular form of angling and spinning. As the lure sails out the line is peeled from the turning spool, and if the angler fails to maintain the proper thumb pressure on the spool it will spin too fast, picking up the slack line and reversing it on the spool. This creates the backlash, "bird's nest," or what have you. This is the baitcaster's headache, the problem that discourages the beginner, and requires constant practice by even the experienced angler.

However, in no other form of angling does the skilled caster have better control of his lure, or possess the same ability to drop it on target. And no other angler is better equipped to do battle with a big fish. The baitcaster can strike quickly, set the hook solidly, and if necessary, use the backbone of his rod to snake a good fish into open water. By varying the pressure of his thumb on the spool, he can better control the play of the fish.

Practice is extremely important for the angler who wants to maintain a sharp edge with a baitcasting outfit. In the absence of practice he gets out on the water and tries too hard, sacrificing accuracy and inviting backlashes as his eagerness for distance causes him to exert insufficient pressure on the reel spool.

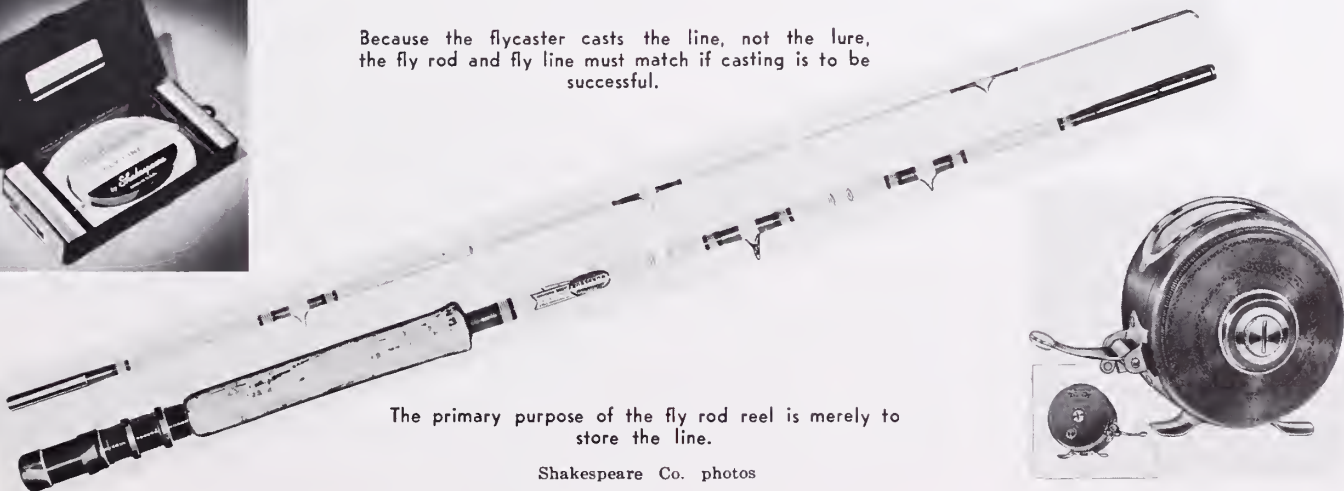
The better baitcasting reels are quadruple multiplying, meaning one turn of the reel handle turns the spool four times. This feature gives the angler a good deal of leeway in varying the speed of his retrieve. Good reels are also equipped with level winding devices which guide the line evenly on the spool.

An expert baitcaster at work is a picture of grace and perfection. The elbow of his casting arm remains close to his side, and his wrist does most of the work as he methodi-

(Continued on page 21)



Because the flycaster casts the line, not the lure, the fly rod and fly line must match if casting is to be successful.



The primary purpose of the fly rod reel is merely to store the line.

Shakespeare Co. photos



J. Cargill Johnson

Commission photo by Kesteloo

COMMISSION CHAIRMAN RETIRES

CHAIRMAN J. Cargill Johnson retired from the Commission of Game and Inland Fisheries on June 30. Having served two consecutive full six-year terms on the Commission, he was not eligible for reappointment.

During Mr. Johnson's tenure as a member of the Commission the character and scope of the Commission's activities have changed markedly. Many of the changes which have come about have been dictated by growth and expansion of the Commission's responsibilities over the past twelve years, and by growing public interest in outdoor recreation and resources, but the direction which these changes has taken has been the result of progressive thinking of able administrators like Mr. Johnson and his contemporaries who have served with him on the Commission.

The Commission purchased 15 Wildlife Management Areas during this period, making 127,632 acres available to licensed Virginia hunters and offering a wide variety of hunting opportunities. Managed public waterfowl hunting was made available to Virginians for the first time with the acquisition of the Pocahontas-Trojan complex at Back Bay in 1964. Managed dove hunting has been developed to a high degree on several areas providing top-notch shooting for a great number of hunters.

Six public fishing lakes totalling 534 acres have been constructed by the Commission in strategic locations around the state since Mr. Johnson began his initial term in 1955. Additional innovations for the fishermen include two Pay-As-You-Go trout fishing facilities and two Fish-For-Fun streams. The state's put-and-take trout program has been put on a sound financial basis and economies in hatchery production have given the state's anglers more trout for their money. A total of 70 boat access points have been developed for fishermen and boaters.

High performance standards and efficiency among the Game Commission's personnel have always been of par-

ticular concern to Mr. Johnson, and during his tenure as Commissioner many improvements in this area have been realized. Game wardens are now selected on a state-wide basis according to aptitude and ability. They are put through an intensive pre-service training program which has resulted in more rapid adaptation to the demands of the job and better performance.

All game wardens now drive state-owned cars at a considerable saving in overall operating costs. New innovations in supervision, including the area leader system just initiated, have greatly improved efficiency. The top salary for game wardens has been more than doubled, and salaries for technical positions have been increased substantially.

The Commission accepted responsibility for enforcement and administration of the State Boating Laws in 1960 and has successfully modified its fiscal and enforcement programs to handle the increased work load. Through a program of education and cooperation the enforcement of dog laws has gradually been shifted to the respective counties with savings to all concerned and better enforcement of dog laws at the local level.

Commission revenues have almost doubled during the 12-year period since 1955. Part of this increase is due to the larger number of license buyers which is, at least to some extent, related to the increased hunting and fishing opportunities provided by the Commission. License increases and new permits have been sought when additional revenues were necessary to keep Game Commission programs moving forward. New management policies including selective timber harvest on Commission lands have benefited game, increased revenue, and given the sportsman more for his money.

Mr. Johnson has served on several of the Commission's special committees, and has been especially active as chairman of the budget, game, and boat committees. He became Chairman of the Commission on July 1, 1966.

CONSERVATIONGRAM

Commission Activities and Late Wildlife News . . . At A Glance

FOREIGN GAME BIRD STOCKS BOLSTERED AND EXPANDED. Last spring the Commission of Game and Inland Fisheries released approximately 5,000 exotic game birds produced at the State Game Farm. The releases were made in twenty-three counties representing all sections of the state. Individual releases, normally consisting of approximately 100 birds, are made in areas providing good combinations of feed and cover conditions and public interest.

What is to be the common pheasant of Virginia is, apparently, a mixed strain of several distinct subspecies originally from Iran, Korea and China. This is the type being stocked on farmland throughout Virginia in Tidewater, Piedmont and Valley areas. The only exception is the Eastern Shore which is being stocked with Japanese green pheasants, a distinctly different species.

The Kalij pheasant also differs considerably from the farmland pheasants. It is large, weighing about two pounds, but is best suited to grouse-like habitat. The species has been rearing broods and surviving winters in a release area on the Jefferson National Forest since April of 1963. More recent trials have been initiated in southwest Virginia foothills areas which lack other game bird species. About 100 of these were stocked on the southeastern slope of the Blue Ridge this spring.

Two other foreign strains, the Korean pheasant and the chukar, are to be propagated at the Game Farm for the first time in 1967. The Korean pheasant is to be propagated from an initial lot of fifteen hens and cocks. All birds reared the first year will be retained as Game Farm breeding stock from which the strain can be mass produced in succeeding years. The French red-legged partridge is a chukar species specially selected for suitability to Virginia environment. This species should have wide adaptability in Virginia.

The farmland pheasants and the chukars are believed to be desirable strains for use by game breeders and shooting preserve operators, and are being made available to these groups in limited numbers.

GOBBLER KILL SETS NEW RECORD. With nearly all turkey tags in, the 1967 Virginia spring gobbler kill stands at 805, a new record and considerably above the 641 bagged last spring. Dinwiddie County led the state with 36 gobblers downed. Cumberland County ranked second with 32 gobbler kills, and Wythe County ranked third with 31. Chesterfield County's 29 kills placed it fourth, while Augusta County was close behind with 28 gobblers. A total of 19 killed in Charles City County represents the greatest number of birds taken there in years. Turkey increases have been noted in several other eastern counties closed to fall shooting and open in the spring. Turkey flocks are likewise building steadily in several southwest Virginia counties where only spring shooting is permitted.

Hunters bagged 641 gobblers during the spring season in 1966. The good spring kill indicates that turkey populations are relatively high over most of the state, but next fall's kill will be governed largely by nesting and rearing success this summer.

Biologists speculate that the high kill in spite of adverse weather indicated that more hunters were afield and that the spring hunters are developing a greater degree of skill in this relatively new type of recreation. Gobbling activity was severely curtailed in many parts of the state by the cool mornings which dominated the April 29-May 13 season.

TWO NAMED SUPERVISING FISH BIOLOGISTS. Dixie L. Shumate, Jr., of Monterey and Ray V. Corning of Walkerton have been promoted to Supervising Biologist positions with the Game Commission. Shumate will supervise the state's cold water fisheries program and Corning will be in charge of warm water fisheries in addition to serving as Assistant Dingell-Johnson Federal Aid Coordinator for the Division. Both men will carry out their new duties from their present addresses.

"THERE he is, there he is!" cried the ecstatic Liz Hartwell as the giant bird, snow white at both ends, spread his enormous wings and flew unhurriedly out of sight around the bend of the creek. This wasn't the distant wind-swept Rockies; it was Fairfax, the most densely populated county in Virginia. To be precise, it was Kane's Creek on Mason Neck, just five miles southwest of Fort Belvoir. But this is the end of the story.

Back at the beginning: We had heard that the bald eagles nested on Mason Neck and had driven down that way one day to look for them. We didn't find any eagles but had a delightful bird walk from Lebanon mansion to Gunston Cove along a well worn pathway. Later we visited Gunston Hall and once again enjoyed a hike to the Cove under the cool and quiet canopy of great hardwoods—but, again, no eagles.

Then one day, through a neighbor, we heard of Mrs. Elizabeth Hartwell, and, introductions arranged, we finagled an invitation from her to go and see (with luck!) the real live national emblem.

It was a warm but windy day as we drove up to Liz's lovely redwood and glass ranch-style home overlooking the wide Potomac. She greeted us exuberantly with: "I hope you brought your tennis shoes." I hadn't. However, Elsie, my wife, was properly shod. Liz said: "Grab that extra gas can," as she started down the steps to her boat dock where her fiberglass Boston whaler was secured. "It's about five miles down to Kane's Creek and the river is choppy today, so hold on tight," she said as the motor drowned out all sounds below a shout. We put on our life jackets and skimmed out of the sheltered area. Suddenly that tough little boat was buffeted with such violence from the rough water that Elsie couldn't retain her grip and came tumbling backward onto our feet ever so gracefully. Liz backed off on the throttle until Elsie regained her position and dignity and, after a good laugh, we roared off again in showers of spray. At the rate of two or three cycles per second, I could see a nearly continuous stream of daylight between Elsie's seat and the boat seat.

Above the din Liz shouted: "Right after we round this point you'll see a large dead tree. There is usually an eagle in it." We rocketed around the point and there he sat!! What a proud and splendid solitary figure. It was our first sighting of this rare and apparently passing symbol. Liz had throttled back as we tried to steady our binoculars for a better look. "Let's see how close we can get to him," she said softly and headed the whaler into the quieter waters along the shore. We idled slowly toward that majestic bird. At about 150 yards the eagle became more alert and visibly tense. At 125 yards he crouched a little lower on the limb. A few more yards and he launched into the wind and swept out of sight in a big arc over the headland. "We'll see him again today," Liz said confidently.

We cruised on and soon saw other eagles, maybe half a dozen individual birds in all. Although we sighted twelve to fourteen, some were undoubtedly duplications. Two or three were too young to have developed any white at either head or tail. Some were soaring, straight winged, in the stiff breeze and some were perched high over the river bank patiently waiting for a fish to rise within fatal distance of the surface.

Kane's Creek is largely inaccessible by any means. This, more than anything else, has preserved its use by the eagles and scores of other fowl and animals which require



wilderness for survival. For about an hour at each high tide, however, the creek, toward which we were now heading, is navigable for a short distance in a shallow-draft boat. As we drew closer, we spotted an osprey standing on an old piling while its mate circled overhead. A pair of snowy egrets glistened in contrast to the brilliant blue sky as they passed across our bow in loose formation.

HING RGINIAN

By M. S. ELTZROTH
Alexandria



Photo by Karl H. Maslowski

Soon we were in the little creek which winds a narrow, torturous course through head-high reeds. These reeds form two impenetrable walls on each side that sway and rustle in the wash of the boat as it passes. At one bend we flushed two wood ducks. One of them crashed noisily up through the reeds and quickly disappeared on blurred wings unmindful that his mate had gone the other way. They would soon

return and find each other. A surprise awaited us at each turn, like the great blue heron which kept leapfrogging half-heartedly ahead. A green heron stood clamped to the protruding root of a large elm tree and nearly stared us down before he scalloped off upstream, calling what sounded like a single-syllable dirty word over his shoulder as he went.

After a quarter mile or so, the propeller was boiling black silt and Liz cut the motor. We tilted the propeller clear of the water and took turns poling the boat along awkwardly with an oar as quietly as we could in the stillness of the sheltered marsh. We progressed a little farther and cleared a sunken log carefully, when Liz said in a whisper: "I almost always see the eagles here, and when I bring the canoe I can sneak up pretty close to them." But we didn't have a canoe and we didn't see the eagle although we were straining hard with the binoculars. Finally Liz said: "Let's go back, the tide's falling," and with sinking spirits we started to turn the boat around when Liz erupted with her cries of: "There he is, there he is." It may well have been the bird which Liz, earlier in the day, had predicted we would see again. He had almost outwaited us.

And that's all there is to the story—except one thing. A small organization known as the Conservation Committee for Mason Neck is dedicated to the preservation of Kane's Creek, the surrounding wilderness and the Great Marsh, and the establishment of a Virginia state park of 1800 acres on the Neck to protect the bald eagle and other bird and animal life being pushed toward extinction by the inexorable sprawl of the eastern seaboard megalopolis. The number of eagles is steadily diminishing. As late as 1962 there were approximately 60 nesting pairs in the Potomac-Chesapeake Bay area, ranging as far up the Potomac River as Harper's Ferry, West Virginia. But today there are only 18 to possibly 22 breeding pairs in this vast area, with the nest at Mason Neck being the northernmost along the great river.

Tremendous progress has been achieved in the past two years by the Conservation Committee of Mason Neck, thanks to the untiring efforts of its vice-chairman Mrs. Hartwell, chairman William R. Durland, delegate to the Virginia Legislature, and Mr. Jameson Parker, director of Gunston Hall. Significant help has come from conservation organizations, local garden clubs and just plain citizens. At this writing the realization of the goal of a state park is in sight. Kane's Creek, which as an interesting bonus also has a great blue heronry with a dozen or so nests, is now within the boundaries of the state's acquisition for Northern Virginia's first state park.

The adjoining Great Marsh, however, is the area which the Northern Virginia Regional Park Authority proposed for acquisition with a bond referendum in the elections of November 1966 and then abandoned not long after the referendum was passed. The marsh contains the only known summertime communal eagle roost in this entire region. It should be included in the over-all park plans for this area as an eagle refuge. Other interests are at work to "develop" Mason Neck, and energetic public action is required at once if this priceless natural area, only 18 miles from the heart of Washington, D.C., is to be preserved for our magnificent and endangered national bird. Virginia again has a unique opportunity to be counted by posterity.

LOTUS AND WATER LILIES

By DR. A. B. MASSEY
V. P. I. Department of Forestry and Wildlife

SPEAKING of lotus, we commonly have in mind plants of the water lily family, the leaves and flowers of which are on slender stems standing well above the water. The name lotus has been variously applied to unrelated plants. It seems to have been a colloquial name of the early Greeks. Tennyson's *The Lotus Eaters* is based on a Greek legend of North Africans who ate the fruits of a thorny shrub known as lotus. These gave them mental hallucinations. Some claim that the thorny shrub was related to the hackberry, totally unrelated to the water lily family. In botany *Lotus* is the technical name of a genus in the pea family. *Lotus corniculatus* is the technical name for the forage plant *Birdsfoot-trefoil*, the flowers of which are small, yellow and the shape of a pea flower.

A pond lily known as the Egyptian lotus (*Nymphaea lotus*), formerly common on the Nile, was very sacred to the Egyptians. The leaves and flowers are not on tall slender stems as in our lotus. The sacred lotus of eastern Asia (*Nelumbo nucifera*) is an attractive species sometimes planted in American garden pools. The flowers are fragrant, five or more inches broad varying in color, white or shades of pink to red. The leaves and flowers are on slender stems high above the water surface. The round leaf is not divided on one side.

The American lotus, *Nelumbo lutea*, has yellow flowers. They and the leaves are on slender stems standing three to six feet above the water, characteristic of our usual idea of the lotus. The leaf blades are circular, as much as a foot in diameter, and situated on the tip of the leaf stalk which is attached in the center of the lower leaf surface. The center is somewhat depressed. The leaf blade, unlike that of our common water lilies, is a continuous circle without a triangular division from point of stem attachment out. The yellow flower, six inches or more broad, is on the top of a slender stem commonly taller than the leaves. Sepals, petals and stamens of the flower surround an inverted cone-shaped center. The 10 or more pistils are separate, their ovaries imbedded in the flat top of the central cone. In each depression a hard black seed, the size of a small marble, develops. The seed are sometimes likened to a chinquapin; hence the colloquial name "water chinquapin." The cone-shape fruiting body is conspicuous on the tip of the old flower stalk.

The Indians valued the American lotus as a food plant. The underwater stem, when cooked, is said to have the suggestion of sweet potatoes. Kernels of the seed are relished when cooked or eaten raw. The seeds are heated in water to loosen the kernel. The hard shell is cracked, the kernel removed and cooked, or eaten without further cooking. Young leaves were cooked as greens. In eastern Asia the sacred lotus is similarly valued as a food plant, especially the seed kernels.

Leaves and flowers of the familiar water lilies (or pond lilies), unlike those of the lotus, float on the water surface, sometimes an inch or two above. Also unlike the lotus, the round leaf blade is divided on one side from the center



Plants commonly known as lotus are members of the waterlily family with circular leaves and large flowers on slender stems standing well above the water.

out. The flowers of the water lily appear to be of similar structure to those of the lotus. The fruiting of the two is very different. The ovaries, and later the seed, of the water lily, are not imbedded in a cone-like structure. A berry-like fruiting body develops under the water. Our native water lily (*Nymphaea odorata*) is the most frequent species in our ponds. The underwater stem and seed are of little food value to man. The more northern species (*Nymphaea tuberosa*) may be introduced in pools and small ponds in the state. This species has some food value. Thick tuber-like development on the underwater stems may be cooked and eaten as a substitute for potatoes. The seeds are much smaller, hence of little food value.

Other species such as the blue flower form of India and Egypt are sometimes introduced in conservatories. The native spatterdock or cow lily (*Nuphar advena*) is an unattractive weedy species in swamps, neglected pools and in shallow water along sluggish streams and pond borders.

The tropical Victoria water lilies of South America are remarkable species which are not adapted to our climate. They may be grown in conservatories' pools which are adjustable to meet their needs. Their circular floating leaves may be as much as six feet in diameter. The edge all around is five or six inches erect. The floating flowers are 6-18 inches broad, white turning pink by the second day.

The species of the water lily family are not of major food value for wildlife. Marsh birds and waterfowl feed on the seed and, incidentally, on the underwater stem. Muskrat and beaver feed on the underwater stems and roots.

Leaves and flowers of the familiar water lilies, or pond lilies, float on the surface of the water.

Commission photos by Kesteloo



I WANT MY BOY TO HAVE A GUN

The fathers of this country couldn't have survived long enough to set up a government if they hadn't been hunters. A mother of today describes here her strong feelings of the role of a gun in her boy's life.

By MARGARET MENAMIN



Commission photo by Kesteloo

LIKE most mothers, I am shocked and outraged when I hear of something like the mass killing which recently happened in Texas. My next reaction is pity for the families and friends of those who were so senselessly slain. But I don't think such things happen simply because some teen-ager has a gun and knows how to aim it. If there is a reason, perhaps it is because they think of a gun as a weapon instead of a tool.

Of course a gun is dangerous. So is dynamite. So is an electrical wire. You can lose a finger in a linotype or an arm in a corn picker. You can lose your life in an automobile or a boat. Yet all these things are important and necessary to our culture, and pity the legislator who tries to curtail their use—especially the automobile! Almost everything we use in our everyday lives can contribute in some way to our death or crippling if we fail to use it as it was intended to be used.

Yet as outrageous as it is that one unbalanced teen-ager can arbitrarily take the lives of nearly a dozen people, it is even more unthinkable to me that because of that person's act, some people would deny thousands of others the pleasure of owning and using a gun.

I want my boy to have a gun. As soon as he is old enough, I want his father to give him one and show him how to use it: how to store and carry it safely; how to keep it clean; how to hold it and aim it accurately; where and when to use it; and when not to use it. I want him to know how to defend himself with it if need be.

I want to see the proud grin on his face the day he brings home his first squirrel or rabbit, and I am going to cook

it and force some of it down if it's as old as Solomon because I remember the day my kid brother got his first one. While his little black-and-white pup yapped excitedly at the kitchen door, he carried that squirrel into the house like a badge of honor, and when he handed it to my mother his eyes weren't kids' eyes any more.

Every boy deserves that moment. When he's older, he will probably be involved in some kind of work which will cut down his hunting hours a great deal; and the amount of meat on the table will depend more on the amount of his take-home pay than on his marksmanship. But that first time, he knows what it is to be a provider. He knows it is a proud thing, and the knowledge will make him a more responsible man.

I want my boy to know the deep satisfaction of choosing not to shoot. I want him to have a chance at that one perfect, symmetrical buck, and the chance to lower his gun and say to himself, "No, not this one."

My son will be taught, as my brother was, that a gun must never be brought into the house loaded; that, regardless of this, it must always be handled as if it *were* loaded. He will learn that it must be cleaned after each hunting trip; that it must always be stored in the same place; and finally, that a gun—even if it is a toy—must never be pointed at another person.

The fathers of this country could not have survived long enough to set up a government if they hadn't been hunters. Many things have changed since then, of course; yet it is deplorable to me that certain representatives of that same government are now seeking to deny our sons this heritage.

Like most mothers, I have confidence and pride in my son. I want him to have a gun. I want him to respect it and prize it and master it. Then it can't master him.

Reprinted from *Missouri Conservationist*, April 1967, courtesy Missouri Department of Conservation.

CERTAIN winter-weary individuals mark the beginning of spring from the day they see the first discouraged robin poking about the lawn. Others tune their ear to catch the chant of north-bound geese. Both these signs are often premature. There is a reliable but more subtle mark of truce between the winter's cold and spring's first greening.

There comes a time when dusk hangs wisps of fog above the alder flats, while still the chill of melting snow is in the air. I make a pilgrimage to watch the homing silhouettes against the rising moon. Then when I hear the nasal "b-e-e-p . . . b-e-e-p . . . b-e-e-p," I know that spring is here to stay. The woodcock bring it to the singing grounds.

I marvel at the metallic, amphibian quality of the sound that somehow fits the habitat. Before the week is past it will be lost among the clamorous pipings of the *Hyla crucifer*.

He sounds his call at well spaced intervals. Finally there is a pause, and then I hear the titterings of flight. I see the bird against the moon. He mounts on whistling

wings, a spiral stairway leading up toward the stars. Always the flight is counter-clockwise. . . . When almost lost from sight there comes a fairy melody, faint and far away, but coming closer rapidly, a bubbling, tumbling song that never fails to bring the ear delight.

Closer he comes, fluttering to break his fall, then, just above the alder tops, hovers for a moment and drops out of sight. He calls, then calls again. The bleating notes are interspersed with low "tuc-oos," a coaxing, dove-like sound meant for the female's ears alone.

I creep closer and dimly see him strut: his wings thrust stiffly down; his tail erect, spread like a tiny fan; so like a turkey cock. I think of Kipling's lines in *Gunga Din*: "an' rather less than 'alf o' that behind." His posturings, his call, his self important pride, to human eyes are ridiculously droll. I see another bird steal from the alders and crouch as if transfixed. The woodcock's strut becomes more pompous. He edges closer, uttering a whining, whimpering call. The darkness settles down.

Bird of Mystery

By ALBERT G. SHIMMEL
West Decatur, Pennsylvania



I walk the path that leads to drier ground, then turn to see the moonlight frost the alder tops. From scattered points across the flats I faintly mark where other birds have singing grounds.

The woodcock is a bird of paradox. His creation seems an afterthought, composed of heterogeneous parts. His bill looks much too long, his tail too short, his eyes too large and set far back. His body seems of too much bulk to be supported by such thin, pink legs and feet.

Probably because of his unusual appearance the woodcock has more aliases than a confirmed criminal. The bird staggers under a multitude of pseudonyms, including woodhen; big-headed snipe; big mud snipe; blind snipe; whistling snipe; wood snipe; night partridge; night peck; hookum pake; Labradore twister; bog sucker; bog bird; bog eyes and timberdoodle.

I climbed the knoll and found a seat where I could watch the pool. Three trout were rising to a hatch of flies. A redstart flashed among the sprouting leaves. My creel contained a brace of trout. I was content. A diminutive yellow violet caught my eye. Around it lay the winter, flattened leaves dusted with pollen from the alder catkins. Then I saw the bird crouched at the alder's base. I glanced away then back again. I was conscious of the effort required to define the bird. Its back was dusted like the fallen leaves with pollen grains. The black, the ashy gray, the buff and brown blended in perfect camouflage, a perfect match for broken lights on fallen leaves and broken twigs. Only the eye, brightly alert, outlined by white, broke the pattern.

I stood erect and slowly moved until my boot was only inches from the bill. I bent and stretched my hand toward the bird. I was so close she brushed my fingers when she flushed. A yard or two away she tumbled on the ground, feigning a broken wing. Again I heard the coaxing whine that I had heard in early spring. I allowed myself to be led away. All at once she made a remarkable recovery and took flight. I heard no whistling wings. Her flight was silent as an owl.

I walked back to the nest. It was a slight depression in the ground. It was impossible to determine whether the dried leaves that formed the lining of the nest were there by accident or design. Four eggs, opalescent brown in color, formed the clutch. Their markings were irregular brown blotches mixed with chalky gray. They were so large it was hard to believe that they were woodcock eggs. The smaller, pointed ends were turned toward the center of the nest. From a few feet away they became invisible.

I moved away and found a comfortable seat beside a maple, where, partly screened by bushes, I could watch the nest. Within a quarter hour the bird came to the knoll. She pattered about in an aimless way that seemed unplanned, but brought her ever nearer to the nest. The nearer she approached the precious eggs the more deliberate her movements became. Finally she reached the nest, probed the eggs delicately with the sensitive tip of her bill, then satisfied that all was well, she settled down to brood.

Summer was two days old when next I met a woodcock. My friend and I pushed our way through the alders that grew between us and the sphagnum bog where wild cranberries should be in blossom.

With whistling wings a woodcock flushed from underfoot and dropped behind the alders a dozen yards away. We did not dare to take a step but scrutinized the ground, inch by inch it seemed. Suddenly I made them out, crouched

at my very feet. Three balls of fluff, motionless and barely visible against the background of the sphagnum moss. I picked one up and placed it on my palm. It did not struggle to escape, but sat perfectly still. When it was replaced, close to the others, it crouched as motionless as before. We made a pencil sketch or two, then left them undisturbed.

When the first frost slivers the lawn and leaves take to themselves the color of the season, the urge to be away comes to us all. Favored is the one that finds release from this disquiet in the coverts where the woodcock come to rest.

Occasionally the coincidence of a northern storm and a full moon will drive the migrants south. The flats that yesterday held a scant dozen native birds may overflow with scores. The whitewash of their splashings mark the leaves, and where the ground is bare the holes where they have probed for worms are everywhere.

There is a familiar roughness in the corduroy collar of an old hunting coat and in the tug of briars at the knee. The blued steel and the polished walnut of the light twenty are like the handclasp of old friends. Even Mak whines with



impatience.

The first bird flushes from the grass under a red-berried hawthorn. It does not rise to the expected height but dodges away, waist high. My shot brings only leaves. The bird sideslipped just in time. I hear his wings, tittering derisively. I break the gun and sniff appreciatively the acrid odor of burned power. I drop another shell into the chamber, and as the lock clicks shut another bird flushes toward the alder tops. He hangs for a split second outlined against the sky. This time the eye is true.

We harvest sparingly and when the day is done, the birds are but a fraction of the bag. I carry home a branch of bittersweet; a pocket full of shellbark hickory nuts; a fungus shelf; a twig with scarlet maple leaves; a frosted apple's tartness and best of all a weariness that approximates content; a thankfulness that life alone can give.

The days are quickly gone. There comes a storm and when it passes I visit the coverts once again. The birds are gone until the spring shall call them back again.

HUNTING RATTLERS

By L. F. ADDINGTON
Wise

VICTOR Bates and Bruce Kinkead have been hunting rattlesnakes in Southwest Virginia for twenty-five years.

"On an average we catch around 500 per summer," Victor Bates said. "We've passed the 12,500 mark in our snake hunting career," Kinkead said.

These men carry what they call snake sticks. The stick is a small metal tube, through which a leather string is passed and looped. They drop the loop over a snake's head, draw the string and have it.

"We've learned not to draw the loop around a snake's neck," Bates said. "If we do that, the snake will flounce and break his neck. We draw the loop a few inches below his neck."

Nothing is more pleasing to these mountain adventurers than to find a snake den.

"The dens are in cliffs," Bates said. "Usually high on the mountains. These layer-cake type of cliffs with shelf rocks are the best places. Just recently I stepped out on the edge of a flat-topped cliff in Powell Mountain and looked down upon a shelf swarming with rattlers. I thought it one of the most beautiful sights I ever saw."

Bates said he and his buddy caught 15 big rattlers at this one den.

"And I tell you," said Kinkead, "when you drop fifteen big snakes into a sack, tie it, and throw it over your shoulder, it makes no light load to carry to where you parked your car at the foot of the mountain."

Yes, they carry them out of the mountains in sacks, unafraid of being bitten through the burlap.

Snake hunters with a pit full of vipers.



Victor Bates and Bruce Kinkead catching a rattlesnake.

"Now a rattler isn't a vicious animal," Bates said. "One won't bite you unless you molest it. It'd rather run from you. Then it'll frequently warn you with rattling."

At one of their snake pits a tourist, looking down into the pile of snakes, asked, "Is it true that they add a rattle every year?"

"No," Bates said, "their age hasn't anything to do with it. They add a rattle, or rather a pair of rattles, every time they shed—and sometimes they shed three or four times a year."

"Then why doesn't a real old snake have more rattles than they have as a rule?"

"Well," Bates said, "they are always growing new rattles and at the same time they are losing old ones—scraping them off as they crawl around rocks and through the woods."

"Now about shedding their skins and getting a new coat every little bit," Bates drawled. "I can tell you how an old snake gets rid of its skin. It rubs the old skin loose around its mouth by scrubbing its nose against a log or rock. It does it on purpose, of course. Then when the old skin starts to peel the snake crawls right out of it. Sure is exciting to watch."

"Say," he looked at the tourist with new interest. "You wouldn't want to come along and see for yourself, would you?"

The tourist was already on his way back down the road.

Each summer they exhibit rattlers in pits along highways for tourists to see. Some local person attends the pit, and charges twenty-five cents (25¢) per person to view the rattlers. They usually have around 200 snakes in a pit per season.

Choose Your Tackle

(Continued from page 11)

cally works a shoreline. The lure arches out with a minimum of effort and drops lightly in pockets, along stumps and in other likely looking spots. With his sensitive thumb the caster maintains just the right pressure, and as the lure sails a few inches over the target, he clamps down on the spool and the lure falls lightly on the water. The trick is to aim just beyond the target and stop the lure's flight as it passes over the target. It's a neat trick.

George Snyder, a Kentucky watchmaker, is credited with inventing the first baitcasting reel over 150 years ago. His design was sound and basically is still with us.

The baitcaster needs fairly heavy lures for casting heft, and the threat of a backlash hangs constantly over even the experts, but for those willing to master it, baitcasting offers angling pleasures found in no other form of fishing. And its origin is strictly American.

The reel, so important in other forms of casting, plays a minor role in flycasting. Its only function is to hold the line. The trick in fly fishing is to match the rod and the line. If this is not done, the venture can become a frustrating experience.

The fly fisherman casts the line—not the lure. The fly simply follows along, but on a correct cast the line and leader straighten out at the end of the cast and the fly falls lightly on the water.

Flycasting proficiency is not difficult to acquire—if the line and rod are matched. Otherwise, it is impossible.

Spinning stole from fly fishing the small plugs and spoons that were there because they were too light for conventional baitcasting tackle. They are still on the market and often labeled for fly-rod use, but are best cast with light spinning tackle—ultralight if necessary. They were always difficult to handle on fly tackle, and the result was usually sloppy casting.

Of the forms of angling discussed here—spinning, spin-casting, baitcasting and flycasting—flycasting is the oldest. It has long been the favorite form of trout fishing, and most anglers still prefer the long stick when fishing for the mountain beauties—when the conditions are right. And many bass fishermen stick to their bugging rods, even though other methods are more ideal for this popular fish.

It is in the use of dry flies that no other form of angling can approach the fly outfit. Take an early summer day and a crystal-clear Old Dominion trout stream. A couple of heavy trout are resting in a long pool, idly finning the thin water. Only an expert will succeed here. The angler gets down on his hands and knees and, using what cover there is, crawls within casting distance of the pair of fish. He carefully works his line out, false casting until he has just the length needed to drop the tiny fly ahead of the trout. The fly settles softly on the clear water and rides the slow current toward the wary trout. As it moves buoyantly on its stiff hackles one of the trout rises slowly and sucks it under. Win or lose, the battle is an exciting one as the long slender rod responds to every trick of the fighting trout.

Moments like these will keep fly-fishing tackle selling for years to come.

So choose your tackle, angler. But only after you have carefully considered the kind of fishing you want to pursue. Fishing conditions, like life, have changed considerably during the past 25 years, but in the modern tackle shop there is just the tackle for the situation you have in mind.

INTERESTING VISTOR

By PAUL SAUNIER, JR.

Charlottesville

FOR about half the daylight hours in January and February a gray-phase screech owl rested in a cavity only eight feet high in a tree only four feet from a well-traveled sidewalk in a residential area of Charlottesville.

Because the cavity opened to the south—the direction of the sidewalk—the little owl almost directly faced north-bound pedestrians until they were within a few feet of him, but the majority never saw him because of his similarity to the gray tree bark. Although his eyes appeared closed, he would keep his head directly facing each northbound pedestrian and would even lean slightly forward to observe or hear each person who passed the tree. Several children noticed him, and with obvious pleasure, but happily I saw none trying to disturb him. As of this writing, however, he has



The tiny gray owl leaned forward to observe or hear each passing person.

not been in the cavity for about a week. For most of the two month period he was seen perched in the mornings and early afternoons of three consecutive days each, after which he would be absent for about three days. Mrs. Robert Barbec collected some pellets from beneath the tree and found them to contain tiny bones—possibly from the rib cages of mice or shrews—and crayfish parts.

To take a picture directly facing the owl would have required a high tripod, probably pre-set to avoid flushing the bird, and such an arrangement would have attracted a crowd. The photo I enclose was made from about five feet away, on a cloudy day, at 1/200th and f4.5 on a f3.5 lens, as I walked slowly by and was about to leave his field of view.

The Virginia Outdoor Plan

(Continued from page 5)

quality of progress and result in an unattractive, uneconomical, and unlivable mess.

In the Open Space Land Act, the General Assembly underlined, once again, the critical problems raised for the State and local governments by the rapid growth of population and the decrease in the quality of urban and suburban living. In order to preserve and enhance the welfare of the citizens of the State, the General Assembly pointed out the need for the preservation of permanent open space land and empowered governing bodies to acquire land to meet this need.

The next act is an amendment to the existing zoning enabling law. Though the original law was regarded by some to be adequate, others had had doubt as to the power of a locality to zone flood plains. The amendment simply mentions flood plains as a specific land use category along with police and fire protection, transportation, water, sewerage, schools, parks, among others. Incidentally, parks,

Public access to ample, unpolluted water is a must.



Commission photo by Kesteloo

The Virginia Outdoor Plan calls for accelerated construction of public boat launching ramps by the Commission of Game and Inland Fisheries.

forests, playgrounds, and recreation facilities were already specifically mentioned in the law. The importance of flood plain zoning cannot be overemphasized. Natural drainage systems can provide buffer zones between developments, serve as agreeable links between parks, allow access to rivers and lakes, and interrupt the deadly housing development—shopping center—borrow pit sequence. It might not be overstating it to say that the first requirement of a good open space and land use plan is flood plain zoning.

Two additional acts are related to roads. The first establishes the Virginia Scenic Highway and Virginia Byway systems. The Study Commission felt that there are numerous beautiful and historic secondary roads throughout Virginia which should be identified and protected for general public enjoyment and for the economic benefit of many regions now bypassed by arterial and interstate roads. The Virginia Byway system does not require building new roads, but rather retaining and enhancing the character of existing roads. With the support of local governing bodies and individual landowners, attractive scenic features can be protected through slightly wider corridors, occasionally by outright purchase, but more often through reasonable zoning, voluntary scenic easements, and purchase of less than fee development rights. The Virginia Byway system provides local governing bodies a great opportunity to preserve local features for their own economic benefit.

The other act relating specifically to roads is the Recreation Access Road Fund. There is now established within the Highway Commission a fund of \$1,500,000 for the biennium for the construction of roads leading to recreation areas. There are many needs for these roads; a dramatic example is in the Smith Mountain Lake area which is now served only by inadequate rural roads.

Another act which will prove of great value created the Virginia Outdoors Foundation. Its purpose is to aid and encourage private philanthropy. This legislation facilitates outright donations to the State. But the most valuable innovation is the open space easement. The open space easement is a legal restriction on land uses placed on the land by the landowner to maintain forever its character as open

space land. This easement can be created by gift or purchase. While it prohibits industrial or commercial development, it does not prevent the landowner from using the land for agricultural or residential purposes so long as he does it in a way that will not destroy the basic rural setting. Since the land is no longer available for commercial development it also provides specifically that property assessments will be reduced to the extent that the fair market value is lowered. The open space easement is an excellent device for conserving open space, keeping it productive as rural land, and avoiding unnecessary large scale fee ownership of land by the State.

In addition to the bills included in the Study Report, the Commission recommended the creation of an agency with adequate staff and funds for comprehensive water resource and river basin studies. This recommendation led to a special study to develop the necessary legislation. The General Assembly enacted this legislation and the State has recognized "the necessity for continuous cooperative planning and effective State-level guidance in the use of water resources" and has given the Board of Conservation and

planning commissions are growing and are at work on the development of their plans for participating in the Virginia Outdoors Plan.

The Commission of Outdoor Recreation is in operation. Its Director, Mr. Elbert Cox, has established his office and is assembling his staff. The Commission has already allocated funds for land acquisition for State parks in the Mason Neck area on the Potomac, and the Sand Ridge area south of Virginia Beach. It has allocated funds for the acquisition of Natural Tunnel in Scott County, for a road system in Mount Rogers State Park, and for the first major improvement in the lifetime of Virginia's existing State parks. In the near future it intends to undertake the planning and development of the first Virginia Byway. Many other projects are on the agenda for action within the coming year.

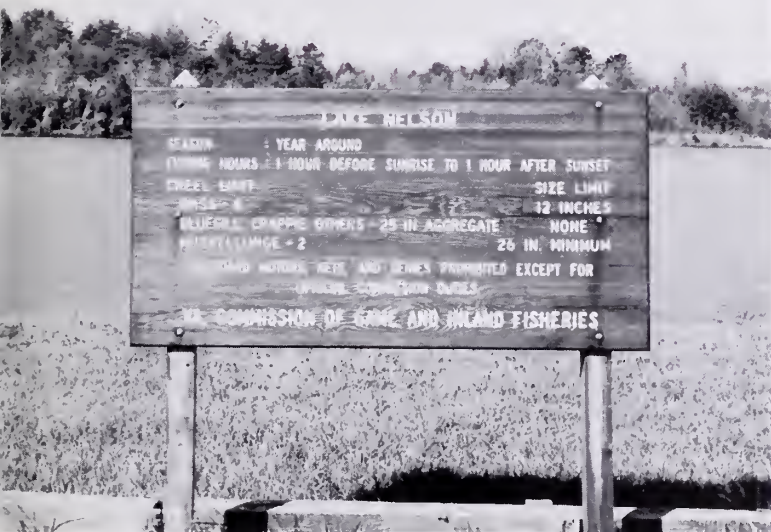
The Division of Water Resources, under Commissioner J. M. Alexander, is making progress in assembling the staff necessary to conduct comprehensive river basin studies and to give guidance on the priorities which must be established in the use of water resources.

These, of course, are only beginnings; but they are good beginnings and before long Virginians will be seeing and enjoying the results of their wise investment in their heritage. Obviously, the Virginia Outdoors Plan is a program of such magnitude and variety that real and lasting progress can only be made over the long pull. It will accomplish things of immense value if we attend to it on a comprehensive and continuing basis and if we bear in mind the following injunction which appeared at the conclusion of *Virginia's Common Wealth*:

If Virginia continues to grow and develop over the years to come at even the present rate, we can see plainly that individual citizens will have to give to the *quality of development* the same emphasis which over the past generation they have been giving to *quantity of development*. After all, the purpose of all our struggles is not just for more money, more goods and more impressive statistics—but for a good life, for an opportunity to enjoy the things we have acquired; a place of pleasure, dignity, and permanence which we can pass on to future generations with satisfaction and pride.

Outdoor recreation involves not just facilities such as parks, roads and campsites, but the entire Virginia outdoor environment.

Va. Conservation Dept., photo



Commission photo by Kesteloo

More public fishing lakes are needed, especially in or near the metropolitan areas.

Economic Development the authority and the funds to "proceed as rapidly as possible to study the existing water resources of this State, means and methods of conserving and augmenting such water resources, and existing and contemplated uses and needs of water for all purposes."

THE BEGINNINGS

These Acts of the General Assembly provide the State and its local governments with the policy directive, the operating machinery, and the funds to get started on the implementation of the Virginia Outdoors Plan. The beginnings are encouraging. Many individual citizens have indicated interest in donating open space easements for the protection of scenic and historic places; a major paper company is cooperating in studies on the best means of conserving a significant natural area; conservation groups are more active than ever in programs for cleaning up streams and protecting the countryside; local and regional





Edited by HARRY GILLAM

Spring Gobbler



This big 21½ pound gobbler sporting an 11 inch beard was bagged by P. H. Goad of Gretna while hunting in Bedford County on the last day of the spring gobbler season.

New Edition of Canoeing Guide

The fifth edition of Randy Carter's *Canoeing White Water* is just off the press containing 200 pages jam-packed with vital information for the canoeist and freshwater fisherman who wants to enjoy Virginia's inland rivers. The new edition is about 50 percent larger than the previous one and contains detailed information on most major Virginia streams plus many in neighboring West Virginia and in the Great Smoky Mountain section.

Each river is described in detail including discussions of the difficult sections and danger areas. Access points and portages are mentioned along with suggested camping sites and points of interest along the river. The fishing opportunities are listed for each river, and particularly attractive fishing spots are described in detail. Maps and photographs supplement the text. Of particular interest to canoeists and float fishermen is data on river gauging stations, how these river height readings may be obtained, and how to translate these into meaningful information for navigating the river.

The book is available from the author, Randy Carter, 158 Winchester Street, Warrenton, Virginia 22186.

Big Tumbling Creek Featured in Outdoor Life

The Game Commission's fee fishing stream on the Clinch Mountain Wildlife Management Area is featured in a story titled "Big Tumbling Creek" in the June issue of *Outdoor Life* magazine. The author is Ken Mink of Bristol.

Near Record



This 9 pound 12 ounce rainbow trout from Lee Sell's spring pond in Grayson County is close to the 9 pound 14 ounce state record established at about the same time. Frank Otey, Jr., was the lucky angler who enticed the big rainbow to hit a #12 gray hackle fly. The fish was stocked as a 5 inch fingerling some 4 years ago.

Fly Rod Use on Increase

The Garcia Corporation reports a sudden increase in the sale of fly rods, which have been pulling ahead of other types of tackle at the rate of 15 percent per year over the last three years. Garcia Vice-President Howard Ashby believes that more than 500,000 anglers a year will be turning to fly tackle for the first time.

Better fly tackle at reasonable prices is cited as one of the possible reasons for the increase in popularity. Many sportsmen's clubs and fishing organizations are pushing fly fishing by offering incentive awards for fish taken in this manner. Many anglers are just looking

for a greater challenge than offered by bait or spin casting.

Virginia Ranks 7th in Hunt License, 14th in Fish License Sales

Virginia ranked 7th nationally in hunting license sales and 14th in fishing license sales during the fiscal year ending June 30, 1966, according to figures just released by the U. S. Bureau of Sport Fisheries and Wildlife. The figures reflect the total number of licenses, permits and stamps sold and not the number of individual hunters and fishermen since one person might purchase several licenses. The above rankings are for resident license and permit sales only. With nonresident licenses included, Virginia ranked 5th in hunting license sales and 12th in the number of fishing licenses sold.

Nationally, sportsmen purchased 42,103,510 state hunting and fishing licenses, tags, permits and stamps for a total of \$139 million. The total number of both hunting and fishing permits declined slightly but the cost to the sportsmen increased. Virginia totals as listed in the report were 730,158 hunting licenses and permits, for which hunters spent \$1,588,628, and 580,093 fishing licenses and permits, which cost the fishermen \$1,088,170. Financially, Virginia ranked only 14th in hunting license revenue and 21st in fishing license revenue in spite of the state's impressive volume.

13 Year Old Bags First Deer

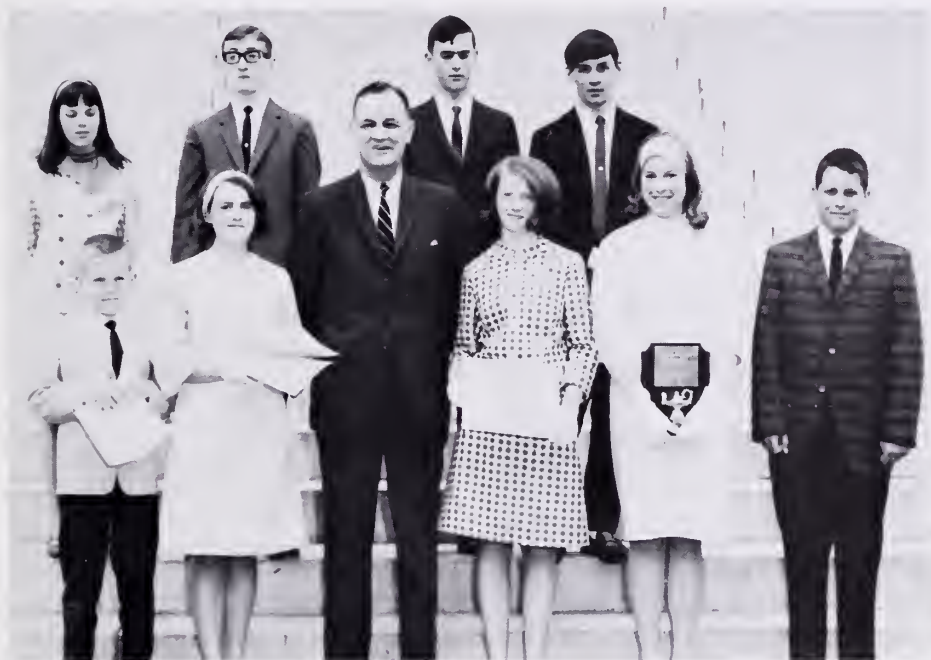


Barbara Anne Sykes, a 13-year-old eighth grader at Greensville County High School, bagged this fine 4 point buck during the hunting season last winter. She is the daughter of Mr. and Mrs. Dana W. Sykes of Emporia.



Edited by ANN PILCHER

Essay Award Checks Received, It's Picture Time



Grand prize winners in the 20th Annual Wildlife Essay Contest, sponsored by the Virginia Division IWLA and the Virginia Game Commission, came to Richmond on April 21 to receive \$50 checks presented by Governor Mills E. Godwin. Shown on Capitol steps after the Senate Chamber awards ceremony are, bottom row left to right, Cople Elementary fifth grader James Ptucha, Hague; Nancy Cecil Dalton of Bland High, 12 grade winner; Governor Godwin; Jenny King of Colonial Heights Junior High, 8th grade; Dorothy Montague, senior at Luray High, \$800 scholarship winner; Mike Heatwole, 7th grader, Waterman School, Harrisonburg. Top row from left: Margaret Dee Richardson, 6th grader in Martinsville's Patrick Henry Elementary School; Wynn Kelly, Pennington Gap 10th grader; Jimmy Borum, Amelia Academy 9th grader; and Bobby Boone, Suffolk's Forest Glen High, 11th Grade. This year 13,684 Virginia children from 183 schools submitted essays on the topic, "Why Conservation of Wildlife and Other Natural Resources Is of Personal Concern to Me."

Top Winner Cited by Wardens



← Game Commission Area Patrol Leader Walter L. Flory, president of the Association of Virginia Game Wardens, and Miss Dorothy Montague admire plaque presented by the Wardens Association to the scholarship winner.

→ Mrs. Polly Taylor, of Harrisonburg, accepts \$10 check and citation for W. H. Keister Elementary School. Other schools receiving similar awards for 100% contest participation by students in grades 5 through 12 include: Callaghan Elementary, Covington; Pamplin Elementary; Deerfield Elementary; Spottswood; Westwood Hills, Waynesboro; Bland Combination; Big Rock Elementary; Arvonja Elementary; Buckingham Elementary; Gladesboro Elementary; Ettrick Elementary; Boyce Elementary; Clarke County High, Berryville; Stonewall Elementary; Clearbrook; Emporia Elementary; Windsor High; Kenbridge Graded Elementary; Unionville Elementary; Green Valley Elementary; Roanoke; Swords Creek; Hayters Gap, Holston; Holston High, Damascus.

Summer Jobs For Young Conservationists

David W. Garwood of Afton and Bobby M. Taylor of Charlottesville were the lucky youths from Virginia chosen for two of the 1967 summer jobs on national parks, wildlife refuges and other public lands reserved by the U. S. Department of the Interior for highly qualified high school students planning careers in natural resource conservation and management. Pay is commensurate with local wage scales. Now in its fifth year, the program is carried on cooperatively by the Interior Department and the Izaak Walton League of America. This year's applications from Virginia students were handled by a committee of the Commonwealth Chapter, Virginia Division of the Izaak Walton League, headed by Chester F. Phelps, chapter president and executive director of the Virginia Commission of Game and Inland Fisheries.

100% Schools Rewarded





Edited by JIM KERRICK

National Safe Boating Week

July 2-8, 1967, has been set aside as National Safe Boating Week as the result of a proclamation by President Lyndon B. Johnson.

A major reason for the decline in the number of boating accidents and the number of fatalities within Virginia during 1966 has been the continuous education in the sport by your Game Commission, Coast Guard Auxiliary, U. S. Power Squadrons and other interested groups.

The boating public is asked to observe Safe Boating Week by paying particular attention to the observance of safety rules and regulations, and by making a mid-summer check of all boating safety equipment and devices. Have an approved lifesaving device in good condition on board for each person, to include the skier if one is being towed. Have proper lights for operation between sunset and sunrise and, if required, a fire extinguisher and sounding device, all in proper working order. Be sure that you have a **VALID** registration and that the card is on board when the boat is in operation.

The Virginia Commission of Game and Inland Fisheries will set up patrols and boat inspections during Safe Boating Week in an effort to keep accidents down and to assist the boating public in every way possible.

Use common sense and courtesy while you are on the water, and let the safety precautions you take during Safe Boating Week become a safety habit that you will follow all the rest of your boating career.

Let us all make National Safe Boating Week one to be remembered—a week without a single boating accident, and one of satisfaction and enjoyment on the waters of Virginia.



NATIONAL SAFE BOATING WEEK
JULY 2-8, 1967

Visibility

The extreme distance that an object can be seen by the naked eye over water varies. Clearness of the atmosphere and height of the observer are determining factors.

For the small boat skipper, it can be useful to know the maximum range of visibility on the water in clear weather.

Eye Elevation (Feet)	Horizon Distance (Nautical Miles)
0.8	1
3	2
7	3
12	4
19	5
27	6

Vibration

Vibration is a steady quivering or trembling, above that normally produced by the engine. This is most likely on inboard craft, though an outboard will vibrate if the motor is not securely fastened. Vibration can be felt as a tremor in the hull, seen in the movement of utensils in the galley or the

rattling of doors, tool boxes, etc. In some cases a change of speed will stop the vibration, but almost any hull will vibrate if too much power is applied. If the vibration is not stopped by varying speed, then the engine and its installation should be checked.

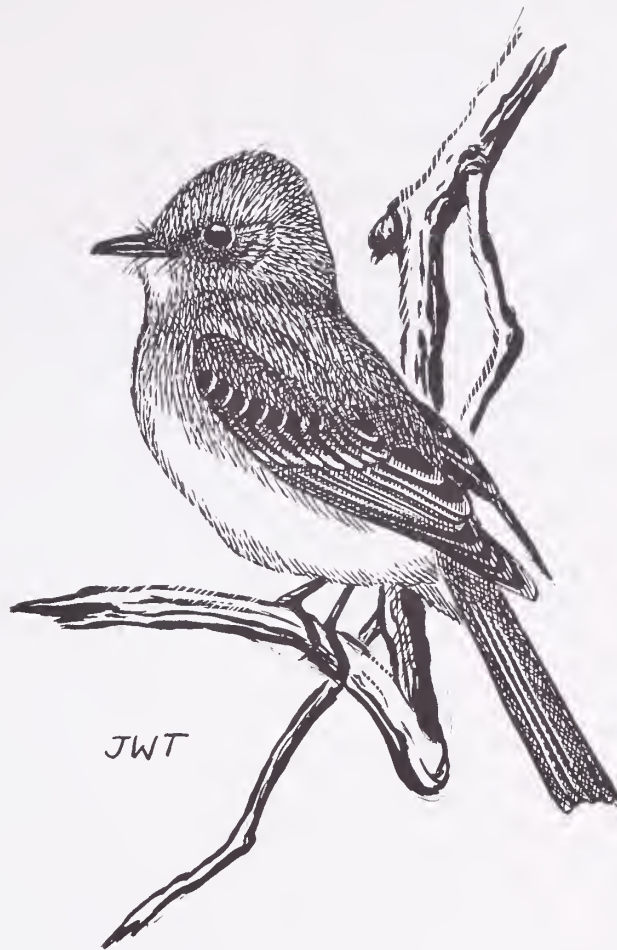
Vibration in itself is not dangerous, but eventually it may create dangerous conditions, by shaking loose fittings, mechanical fixtures, screws in the hull and even cause the hull to leak. The vibration can become the source of irritation for everyone on board.

Engine vibration is caused by the engine being improperly mounted or because it is rigidly connected to the hull or superstructure. Engines should not be mounted on metal, but on rubber or plastic washers or shocks.

Rigid connections such as fuel lines, throttle and gear controls, instrument panel and exhaust lines must be inspected to determine if they are the cause of the vibration. If necessary the fuel lines should be replaced with flexible lines. Control rods may be replaced with cables or wire. A rigid exhaust can have one section removed and replaced with a hose made for such use.

Propeller vibration usually occurs because the propeller shaft is loose at a point where the shaft contacts the engine, or stern strut. The best way to test is to move the shaft by hand, noting where the excess play is. An insulated coupling may be installed to connect propeller shaft and engine driveshaft; a rubber bushing should block vibration in the strut. Your inspection may show that the shaft itself is bent or damaged. Then the shaft should be repaired or replaced. A bent or nicked propeller will cause vibration; if so, repair or replace. Sometimes a propeller of another size will stop the vibration.

Bird
of the
Month:



Wood Pewee

By DR. J. J. MURRAY
Lexington

THE pewee is one of the birds whose name, to use an unwieldy word, is onomatopoeic, which means that the name is announced in its call note, "pee-a-wee." In this series we have already discussed a number of birds which have this habit, whip-poor-will, willet, bobwhite, killdeer, flicker, towhee, and the pewee's cousin, the phoebe. The pewee is also one of the birds that I have heard sing late at night.

Sometimes, although without much excuse, the pewee and the phoebe are confused. They are in general alike in color although the pewee has much more definite wing bars. It also seems to me a much trimmer bird. The call notes, however, are quite different. Each bird gives you its name in its call, one a lazy "pee-a-wee," with the accent on the first and last syllables, the other a clear, sharp "phee-be," with the accent on the first syllable. The pewee does not flip its tail, while its cousin, the phoebe, does.

Male and female pewees are alike, brownish-gray above, two wing bars, upper breast and sides pale gray, lower underparts white and often with a touch of yellow. The tail is lightly forked. The bird is about 6½ inches in length, the male, as is usually the case, slightly larger than the female.

These birds build a lovely nest, sometimes as low as six feet, sometimes as high as fifty, flattened on the top of

a branch and so covered with lichens that it is not easy to find except when you see the bird fly into it. Sometimes when there are several in the family and the young are well grown they will fill the nest almost to overflowing.

The courtship performance is simple but attractive. I remember watching a pair once in mid-May at our cabin on the Maury River. Each bird of the pair, even when they were some distance apart, would flutter its wings, turning from side to side on the branch and continually calling a low, sweet, drawn-out "pee-wee."

In this beautiful nest the female pewee lays three or four creamy-white eggs, ringed around the larger end with spots of various shades of brownish and purplish. It takes about 12 days for these lovely eggs to hatch into grotesque babies. Naked at first, they feather rapidly until by the time of the fall molt they are almost as lovely as their trim parents.

One of the happiest moments of spring for the bird lover is when he hears the first dreamy whistle of the pewee. In the Valley of Virginia it is in the last days of April that this happens. In late September there is a heavy strung-out migration around the forest-bordered fields in the Blue Ridge Mountains. The last birds leave the Valley just before the middle of October. I have seen an old bird still feeding a late youngster in the middle of September.

GO ~~NO~~ FISHING

You're welcome in miles and miles and acres and acres of Virginia's fine fishing waters; but here are a few things we hope you do. They'll make "happier fishing."



FIRST—buy your fishing license and have it with you when you go fishing. Know the fishing regulations and obey them.



Don't fish too close to another angler. Fishing is a sport—be a sportsman.



D. RAY



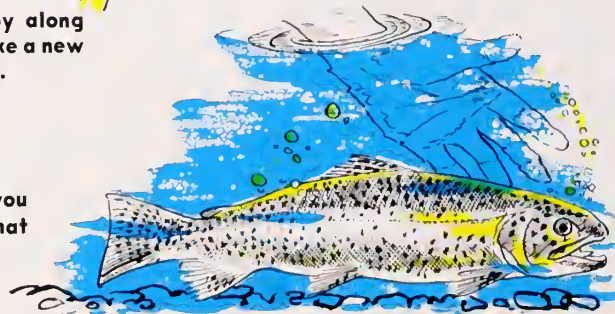
Take a boy along—help make a new sportsman.

Never stand up in a boat. Always take safety with you on your trip.



Always ask permission to fish private waters.

Take only what you can use. Use all that you take.



GOOD FISHING!